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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,956	08/28/2001	Satoru Shibuya	41A 3158	5186

7590 09/09/2004

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EXAMINER

LE, BRIAN Q

ART UNIT PAPER NUMBER

2623

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,956	SHIBUYA, SATORU	
	Examiner	Art Unit	
	Brian Q Le	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: support for the term 'MAP' is not mentioned in the original disclosure.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Regarding claim 2, the term "MAP" is not clearly understood by one skilled the art. The original disclosure does not show the support for this terminology.

For claim 3, one skilled in the art does not understand how the predetermined period of time are measured with respect to the background image. Further explanation of the original disclosure is needed to show how the 'predetermined period of time are considered as being originated from said background image'.

Referring to claim 4 and 5, one skilled in the art does not understand how a substitution of a tangent line to a normal vector group would help identifying an object image. Further explanation of the original disclosure is needed to show how a tangent line is substituted for a normal vector would help identifying an object image.

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Claims not specifically addressed depend from indefinite antecedent claims.

Claim Objections

4. Claims 1-5 are objected to because these claims are very difficult to understand due to the use of confusing language. Appropriate correction is required. The prior art rejection based on the Examiner's best understanding.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsugu U.S.

Patent No. 6,674,905.

Regarding claim 1, Matsugu teaches a method for identifying an object image (FIG. 3) that uses a density difference (color component such as intensity) between a background image and an object image in a picture (column 23, lines 10-33), said method comprising the steps of:

arranging a Standard Object (an object) image on a picture in which an arrangement point, which is an arbitrary point on said picture that shows a background image, is used as a reference point (representative points) (FIG. 15 and column 19, lines 1-13);

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determining a normal vector group on outline portions (group of points) of said Standard Object image based upon density difference (density gradient) in said background image and said Standard Object image (FIG. 15 and column 11, lines 37-42);

determining an angle information of respective normal vectors and determining a position information from said arrangement point (column 12, lines 45-67) to said respective normal vectors of said normal vector group (FIG. 9);

storing said position information and angle information as standard data for said arrangement point (store image data) (column 4, lines 62-64);

determining, for a picture that shows an object image to be recognized (the recognition and extraction of the object image) (column 10, lines 15-20), a normal vector group on outline portions of said object image based upon density difference in said object image and a background image (column 18, lines 48-62 and column 23, lines 10-33);

determining a plurality of Answer point groups, that correspond to said arrangement points, from said normal vector group based upon said standard data (column 12, lines 46-67);
and

evaluating a focus point region (evaluation of each edge component) formed by said Answer point group (column 19, lines 50-67).

For claim 2, Matsugu further teaches the method for identifying an object image wherein:
said Standard Object image is divided into two or more parts, and the same number of standard data is formed for each divided Standard Object image (the separation of data in representing the object and the standard object and the object image) (FIG. 3D, 3E, and 3F);

an Answer point group is determined for each one of said standard data for the object image to be recognized, and MAP screens (relation between points) (column 12, lines 50-52) in which said Answer point group are determined for every standard data are formed for the same number as said divided Standard Object image (column 12, lines 45-67);

and said respective MAP screens are combined into an evaluation screen, and a focus point region formed by Answer point groups of said evaluation screen is evaluated (FIG. 15 and column 19, lines 1-15).

Regarding claims 3-5, there are no prior arts found to teach the claimed limitations.

CONCLUSION

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to object extraction:

U.S. Pat. No. 6,453,069 to Matsugu, teaches method of extracting image from input image using reference image.

U.S. Pat. No. 6,542,639 to Konoshima, teaches region extraction method.

U.S. Pat. No. 6,332,038 to Funayama, teaches image processing method.

U.S. Pat. No. 5,740,274 to Ono, teaches method for recognizing object images and learning method for neural networks.

U.S. Pat. No. 5,764,786 to Kuwashima, teaches moving object measurement device employing a three-dimensional analysis to obtain characteristics of the moving object.

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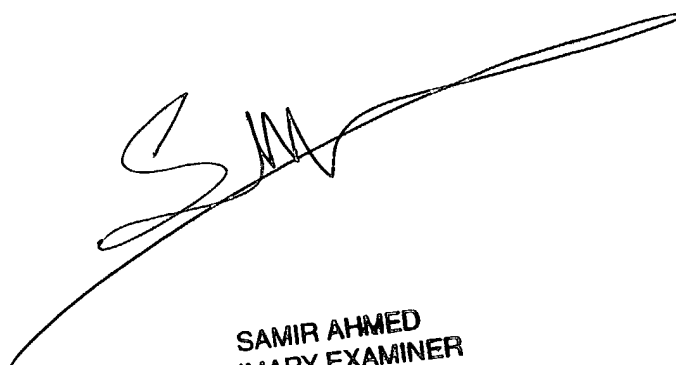
U.S. Pat. No. 6,072,889 to Deaett, teaches method and system for imaging target detection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q Le whose telephone number is 703-305-5083. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC Customer Service whose telephone number is 703-306-0377.

BL
August 25, 2004



**SAMIR AHMED
PRIMARY EXAMINER**